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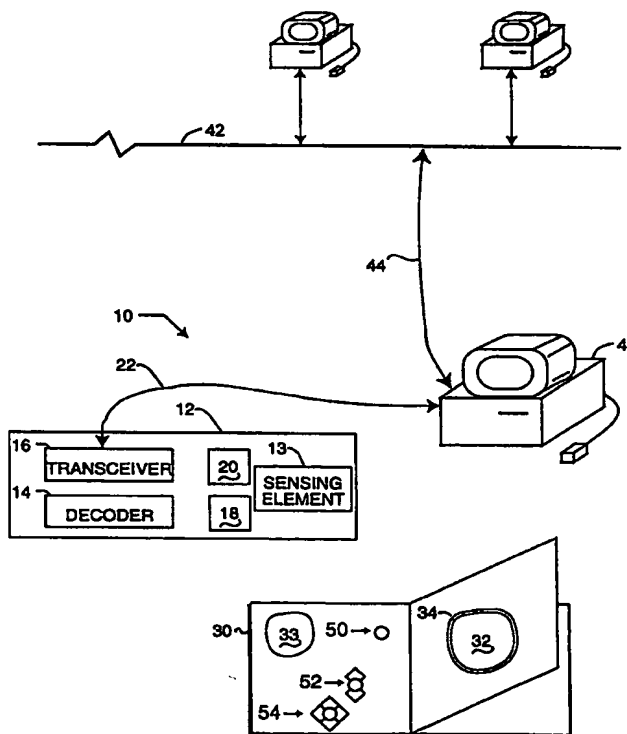
## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification <sup>6</sup> : <b>G06F 3/023, 17/30, G06K 19/06</b>		A3	(11) International Publication Number: <b>WO 99/34277</b>
			(43) International Publication Date: 8 July 1999 (08.07.99)
(21) International Application Number: PCT/US98/27210 (22) International Filing Date: 21 December 1998 (21.12.98)  (30) Priority Data: 60/068,780 24 December 1997 (24.12.97) US 09/060,221 14 April 1998 (14.04.98) US  (71) Applicant: INTERVAL RESEARCH CORPORATION [US/US]; 1801 Page Mill Road, Palo Alto, CA 94304 (US).  (72) Inventors: DOUGHERTY, Thomas, J.; 317 Ramon Drive, Los Altos, CA 94024 (US). MOUNTFORD, S., Joy; 491 Frances Way, Mountain View, CA 94041 (US). CUM- MINGS, Daniel; 1655 Waller Street #4, San Francisco, CA 94117 (US). DE FREN, Allison; 1240 Hayes Street #10, San Francisco, CA 94117 (US).  (74) Agent: COLEMAN, Brian, R.; Hickman & Martine, LLP, P.O. Box 52037, Palo Alto, CA 94303-0746 (US).			(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).  Published <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>  (88) Date of publication of the international search report: 11 November 1999 (11.11.99)

(54) Title: PRINTABLE INTERFACES AND DIGITAL LINKMARKS

## (57) Abstract

The present invention improves the human/computer interface by providing printable interfaces that enable a user to invoke and control computer processes. The present invention teaches an encoded physical medium suitable for use in interfacing a computer user and a computer system such that the user can control and/or access a plurality of computer implemented processes such as computer applications and web pages. The encoded physical medium has a Linkmark and an instruction mark. Encoded within the Linkmark is machine readable linking information directing to a computer implemented process. Encoded within the instruction mark is a machine readable operating instruction that, when decoded, may be executed by the computer implemented process. The present invention also teaches that the marks can present human readable information related to the nature of the machine readable information stored therein. For example, the Linkmark may have graphical illustrations indicating content found at the web page, media format of the content, user designation, payment and membership requirements, communication speed, duration of content, etc. The present invention further teaches a two-dimensional bar code with a plurality of colored glyphs formed such that the average color of the two-dimensional bar code represents encoded information. The colored glyphs are also arranged such that digital information is encoded within the two-dimensional bar code.



# INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 98/27210

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 6 G06F3/023 G06F17/30 G06K19/06

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 6 G06F G06K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 97 01137 A (SOLAR COMMUNICATIONS INC) 9 January 1997 (1997-01-09)	1-5, 26-33, 36-39, 46-55 56
A	abstract page 5, line 26 - page 6, line 8 figures 1-10	
X	US 5 640 193 A (WELLNER PIERRE DAVID) 17 June 1997 (1997-06-17)  the whole document	1-6, 15, 26, 36-39, 46-56



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

\* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

31 August 1999

Date of mailing of the international search report

16. 09. 1999

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# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US 98/27210

## Box I Observations where certain claims were found unsearchable (Continuation of Item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of Item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☒ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

### Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☒ No protest accompanied the payment of additional search fees.

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 98/27210

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